

# Senuri Wijenayake

PhD Candidate | Human Computer Interaction | Social Computing

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## Profile

I am a final year PhD candidate in Human-Computer Interaction and Social Computing. My research primarily focuses on designing online group platforms accounting for socio-psychological influences such as social conformity. More broadly, I am interested in understanding "why people do what they do" when using computing systems, in relation to HCI theory. I have extensive research experience designing and conducting mixed method user studies, and data analysis using both quantitative & qualitative methods. Additionally, I have a Software Engineering background with experience in cross-functional teams implementing agile software processes. I also enjoy teaching and mentoring students, imparting my knowledge and experience on to future generations.

## Education

**PhD in Computer Science (expected completion in July 2021)**

Jul 2018 - Present

School of Computing and Information Systems, University of Melbourne, Australia.

Supervised By: Dr. Jorge Goncalves and Prof. Vassilis Kostakos

**Thesis: Impact of Group Composition on Social Conformity in Online Learning Environments**

Social conformity has both positive and negative effects on how students behave and make decisions in online learning platforms. My research aims to quantify contextual and personal determinants of conformity and inform how learning platforms can be designed considering conformity influences to ensure healthy social interactions.

**BSc. (Hons) in Information Technology**

May 2013 - Oct 2017

Faculty of Information Technology, University of Moratuwa, Sri Lanka.

Highlights:

- Gold Medal for the Best Academic Performance at the BSc. (Hons) IT Examinations in 2017.
- Gold Medal for the Most Outstanding Student of University of Moratuwa across all faculties in 2017 for outstanding academic performance, research contribution, volunteer work and extra-curricular activities.

**Passed Finalist - Chartered Institute of Management Accountants (CIMA)**

Sep 2011 - Nov 2015

CIMA, United Kingdom.

Courses Completed: Strategic Management, Financial Strategy, Risk Management, Project Management, HR, Law

## Work Experience

**Academic Tutor**

Jan 2019 - Present

School of Computing and Information Systems, University of Melbourne, Australia.

- Conducted workshops for graduate and undergraduate courses including Social Computing (2020), Evaluating User Experience (2018, 2019) and Fundamentals of Interaction Design (2019).
- Developed workshop content and rubrics for assessment evaluation, and supervised student projects.
- Teaching support at the HCI Lab for usability evaluation projects (Evaluating User Experience).
- Highlights:
  - Received the Excellence in Tutoring Award in recognition of the outstanding contribution to tutoring in School of Computing and Information Systems in 2019.
  - Certifications completed:
    - Melbourne Teaching Certificate for Graduate Researchers awarded by the University of Melbourne.
    - Foundations of Teaching and Learning for Graduate Researchers awarded by the University of Melbourne.

Tracified, 99X Technology, Sri Lanka.

- Designed and developed a traceability solution for e-commerce platforms selling premium products ([Tracified](#)).
- Winner of Gold Award in Retail and Supply Chain Management at the National Best Quality Software Awards (NBQSA) Sri Lanka in 2017.
- Responsibilities:
  - Leading a 20+ team of Developers, UX Engineers and Quality Assurance Engineers and overseeing the scrum activities as the team's Scrum Master.
  - Full stack software development using [AngularJs](#), [CSS](#), [HTML](#), [TypeScript](#), [Express](#), [MongoDB](#).
  - Guiding the product engineering process from product designing to deployment.
  - Conducting on-site training for clients and compiling training manuals.
  - Communicating with clients for requirement gathering, customisations and troubleshooting.

## Software Engineering Intern

Mar 2016 - Sep 2016

PicaSix, 99X Technology, Sri Lanka.

- Frontend developer for PicaSix – a web-based supply chain management system – which aligns processes between importers, suppliers, production, wholesalers and end-consumers.
- Responsibilities:
  - Full stack software development using [AngularJs](#), [JavaScript](#), [HTML](#), [CSS](#), [Ruby on Rails](#).
  - Implementing automated frontend testing using [Protractor](#) and compiled technical documentation for the setup.
  - Experience in Scrum activities and communicating with Product Owner and client for requirement gathering, customisations and technical walk-throughs.

## Undergraduate Developer

Aug 2014 - May 2015

Embla Software Innovations, Sri Lanka.

- Developed an interactive website to digitise handwritten information of Norwegian church books through crowdsourcing and use that information to enable users to discover and graphically illustrate their family trees.
- Responsibilities:
  - Full stack software development using [HTML](#), [CSS](#), [JavaScript](#), [C#](#), [Entity Framework](#), [SQL Server](#).
  - Communicating with the Product Owner and the Business Analyst for requirement gathering, customisations and technical walk-throughs.

# Research Publications

## 2021

[Quantifying the Effects of Age-related Stereotypes on Online Social Conformity \(to appear\)](#)

[S. Wijenayake](#), J. Hu, V. Kostakos, J. Goncalves

Proceedings of the Eighteenth International Conference on Human-Computer Interaction (INTERACT'21)

## 2020

[Impact of Contextual and Personal Determinants of Online Social Conformity \[pdf\] \[doi\]](#)

[S. Wijenayake](#), N. van Berkel, V. Kostakos, J. Goncalves

Computers in Human Behaviour (Impact Factor: 5.0)

[Quantifying the Effect of Social Presence on Online Social Conformity \[pdf\] \[doi\]](#)

[S. Wijenayake](#), N. van Berkel, V. Kostakos, J. Goncalves

Proceedings of the ACM on Human-Computer Interaction (CSCW'20)

[Effect of Conformity on Perceived Trustworthiness of News in Social Media \[pdf\] \[doi\]](#)

[S. Wijenayake](#), D. Hettiachchi, S. Hosio, V. Kostakos, J. Goncalves

IEEE Internet Computing (Impact Factor: 4.2)

[How Context Influences Cross-Device Task Acceptance in Crowd Work \[pdf\] \[doi\]](#)

D. Hettiachchi, [S. Wijenayake](#), S. Hosio, V. Kostakos, J. Goncalves

Proceedings of the Eighth AAAI Conference on Human Computation and Crowdsourcing (HCOMP'20)

## 2020 (cont.)

Bots for Research: Minimising the Experimenter Effect [[pdf](#)]

[S. Wijenayake](#), N. van Berkel, J. Goncalves

International Workshop on Detection and Design for Cognitive Biases in People & Computing Systems (CHI'20)

## 2019

Measuring the Effects of Gender on Online Social Conformity [[pdf](#)] [[doi](#)]

[S. Wijenayake](#), N. van Berkel, V. Kostakos, J. Goncalves

Proceedings of the ACM on Human-Computer Interaction (CSCW'19)

Crowdsourcing Perceptions of Fair Predictors for Machine Learning: A Recidivism Case Study [[pdf](#)] [[doi](#)]

N. van Berkel, J. Goncalves, D. Hettiachchi, [S. Wijenayake](#), R.M. Kelly, V. Kostakos

Proceedings of the ACM on Human-Computer Interaction (CSCW'19)

## 2018

A Decision Tree Approach to Predicting Recidivism in Domestic Violence [[pdf](#)] [[doi](#)]

[S. Wijenayake](#), T. Graham, P. Christen

Proceedings of the Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD'18)

Predicting Tie Strength between Facebook Friends to Improve Accuracy in Travel Recommendation Systems [[pdf](#)] [[doi](#)]

[S. Wijenayake](#), S. Ganiachchi, J. Wijekoon, S. Ahangama

Proceedings of the Pacific Asia Conference on Information Systems 2018 (PACIS'18)

Improving Accuracy in Mobile Human Contributions: An Overview [[pdf](#)] [[doi](#)]

N. van Berkel, M. Budde, [S. Wijenayake](#), J. Goncalves

Proceedings of the ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp'18)

## 2017

A Context Aware & Personalized Multiple Location Trip Planner Using Facebook Check-ins of a User [[pdf](#)] [[doi](#)]

[S. Wijenayake](#), S. Ganiachchi, J. Wijekoon, S. Ahangama

Proceedings of the 17th International Conference on Advances in ICT for Emerging Regions (ICTer'17)

Creation of Semantic Location Profiles using Bayes, Rule-Based, Trees and Meta Classification Approaches [[pdf](#)] [[doi](#)]

S. Ganiachchi, [S. Wijenayake](#), J. Wijekoon, S. Ahangama

Proceedings of the 13th International Conference on Natural Computation, Fuzzy Systems and Knowledge Discovery (ICNC-FSKD'17)

# Honors & Awards

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- 2019 Excellence in Tutoring Award, School of Computing and Information Systems, University of Melbourne
- 2018 Best Paper Award, Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD'18)
- 2017 Gold Medal for the Best Academic Performance at BSc. (Hons) IT Examinations, University of Moratuwa
- 2017 Gold Medal for the Most Outstanding Student across all faculties, University of Moratuwa
- 2017 Gold Award in Retail and Supply Chain Management, National Best Quality Software Awards (NBQSA)
- 2017 Merit Award in Culture and Tourism, e-Swabhimani'17 organised by Information and Communication Technology Agency (ICTA), Sri Lanka

# Scholarships

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- 2021 Diane Lemaire Scholarship, Faculty of Engineering and IT, University of Melbourne
- 2019 Conference Travel Scholarship, School of Computing and Information Systems, University of Melbourne
- 2019 Conference Travel Scholarship, Melbourne School of Engineering, University of Melbourne
- 2018 Melbourne Research Scholarship, University of Melbourne
- 2018 Rowden White Scholarship, University of Melbourne

# Skills

Research	User Studies, Usability Testing, Interviews, Crowdsourcing, Prototyping, Mixed Methods
Programming	R, Python, JavaScript, AngularJs, NodeJs, MongoDB, SQL, TypeScript, ExpressJs, HTML/CSS
Digital Media	Canva, Adobe XD, Hootsuite, Photoshop, Social Media Design
Interpersonal	Public Speaking, Academic Tutoring & Mentorship
Processes	Agile Scrum, Kanban, Technical Documentation, Technical Training, Project Management

## Academic Services

- **Supervision & Mentorship:**
  - [Mentor for PhD students](#) under the "[Help-a-Mate](#)" initiative of School of Computing and Information Systems, University of Melbourne (Jul 2020 - Present)
  - [Co-supervisor](#) for [INFO90008 HCI Project](#) for Jolan Hu (MIT) in 2020.
  - [Co-supervisor](#) for [INFO90008 HCI Project](#) for Shangqian Li (MIS) in 2021.
- **Organising Committee Member:**
  - Social Media Co-chair for the Australian Conference on Human-Computer Interaction 2020 ([@ozchiconf](#))
- **Student Volunteer:**
  - ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW'20)
  - CIS Doctoral Colloquium 2018 organised by the University of Melbourne
- **Conference & Journal Reviewing:**
  - ACM Conference on Human Factors in Computing Systems (CHI)
  - ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)
  - The Web Conference (WWW)
  - International Conference on Human-Computer Interaction (INTERACT)
  - Australian Conference on Human-Computer Interaction (OzCHI)
  - Computers in Human Behaviour (CHB)
  - Social Sciences & Humanities Open (SSHO)

## Voluntary Work

### Motivational Speaker & Mentor

May 2015 - Present

#### Career Guidance Unit, University of Moratuwa, Sri Lanka

- [Conducting online seminars to undergraduate students](#) at University of Moratuwa on international opportunities for higher education (2018 - present).
- [Conducting seminars to rural schools in Sri Lanka](#) on higher education opportunities (2015 - 2017).
- [Mentoring high school students](#) at Visakha Vidyalaya, Sri Lanka on their GCE Advanced Level IT Projects in 2017.

### Secretary

Dec 2020 - Present

#### Media & Communications Officer

May 2019 - Dec 2020

#### Sri Lankan Graduates' Society (SLGS), University of Melbourne, Australia.

- Handled the [social media presence of SLGS](#) - a graduate student association at University of Melbourne.
- Actively contributed in [designing the SLGS official website](#) and the [e-newsletter for year 2020](#).

### Main Student Representative

Jan 2016 - Jan 2017

#### Faculty of Information Technology, University of Moratuwa, Sri Lanka.

### Editor in Chief - FIT Chronicle

Jan 2015 - Aug 2017

#### Faculty of Information Technology, University of Moratuwa, Sri Lanka.

- FIT Chronicle - the [academic magazine of the Faculty of IT](#), University of Moratuwa - is the outcome of combined effort from the faculty and students.
- Under my leadership, the FIT Chronicle brought the spotlight onto faculty events, academic programs, student achievements, student extracurricular activities with a new addition of a "students' corner" to exhibit composing talents and artistic insight of FIT students.

See FIT Chronicle: [2015 Edition](#) [2016 Edition](#)